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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PLUMMER, ELIZABETH A	

ART UNIT	PAPER NUMBER
3635	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,114	MAO, LO	
	Examiner	Art Unit	
	ELIZABETH A. PLUMMER	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6,7,9-11,13-15 and 20-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-4, 6-7, 9-11, 13-15, and 20-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendments and arguments received have been entered and considered. Claims 12 and 17-19 have been canceled. An examination of pending claims 1, 3-4, 6-7, 9-11, 13-15, and 20-24 is herein presented.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4, 6, 7, 9, 11, 13-15, and 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Cook et al. (US Patent 6,865,791).

a. Regarding claim 1 as best understood, Cook et al. discloses a bending moment resistant structure comprising a plurality of supported members (diagonal members 2), each of the supported members having two ends with at least one of the two ends being moment resistant joined to a connection element (vertical members 3) at a joint; a plurality of supporting members (19), each of the supporting members having two ends with one of the of the two ends being moment resistant joined to the connection element in a joint (Figs. 6a-6l) and another one of the two ends being disposed at a support spot (adjacent 21) of the respective supported member, the supporting members capable of

generating deformation when the supporting member is subjected to a moment; whereby if the structure is subjected to a load and the supported member endures a moment, the supported member is supported by the supported member by the supporting member at the support spot with the supporting member resisting deflection of the supported member such that the supporting member and supported exert a respective action to each other, resulting in the joint enduring a bending moment and intensifying a bending moment resistance at the joint and the action to the supported member reduces a bending moment of the supported member at the support spot and the bending moment value at the joint becomes uniform (abstract; column 3, lines 22-37; column 3, lines 49-55; column 4, lines 14-27; column 5, lines 15-17); wherein the supporting member is a hollow member (Figs. 6a-6l) with a cross section shaped like a round tube and the supported member having a corresponding shape, wherein the supporting member is provided with the shape of a non-prismatic cross section.

b. Regarding claim 4 as best understood, a plurality of spots (adjacent 21) which are located along the supporting member are supported for two or more deflection directions (supported for 360 degrees around).

c. Regarding claim 6 as best understood, the supporting member is disposed at the lateral sides of the supported member (Fig. 6a-6l)

d. Regarding claim 7 as best understood, the supported member is a round tube and the supporting member is provided with a corresponding shape (Figs. 6a-6l).

e. Regarding claim 9 as best understood, an isolator (6) is disposed between the supported member and the supported member at the support spot and connected to either the supported m ember or the supporting member (Fig. 3a-3e; column 4, lines 50-54).

f. Regarding claim 11 as best understood, the material of the isolator can be elastic (column 2, lines 66-67).

g. Regarding claims 13 and 20 as best understood, the supported member can be in contact with the supporting member (via the SMA shims) with no action in between when the shim when the supported member is not subjected to a load, but wherein when the supported member is subjected to a load the supporting member endures a bending moment and displacement occurs and results in an action between the supported member and the supporting member (column 3, lines 19-37; column 4, lines 24-27; column 5, lines 55-59; column 6, lines 41-54).

h. Regarding claims 14 and 21 as best understood, a clearance is between the supported member and supporting member (Fig. 3a-3e) but the support member contacts with the supported member (via SMA shims) and when a load is exerted on a supported member deflection occurs due to a bending moment being endured by the supported member and a reaction is produced between the

supporting member and the supported member (column 3, lines 19-37; column 4, lines 24-27; column 5, lines 55-59; column 6, lines 41-54).

i. Regarding claims 15 and 22 as best understood, the supporting member and the supported member at the support can have an action already in between (abstract, lines 15-18; column 7, lines 1-26) when the frame is not subjected to a load, and when the supported member is subjected to a load, the action changes due to enduring a bending moment and occurring deflection (column 1, lines 35-55).

j. Regarding claim 23, Cook et al. discloses a bending moment resistant structure comprising a plurality of supported members (diagonal members 2), each of the supported members having two ends with at least one of the two ends being moment resistant joined to a connection element (vertical members 3); a plurality of supporting members (19), each of the supporting members having two ends with one of the of the two ends being moment resistant joined to the connection element (Figs. 6a-6l) and another one of the two ends being disposed at a support spot (adjacent 21) of the respective supported member; whereby if the structure is subjected to a load and the supported member endures a moment, the supported member is supported by the supporting member at the support spot with the supporting member resisting deflection of the supported member such that the supporting member and supported exert a respective action to each other, resulting in the joint enduring a bending moment and intensifying a bending moment resistance at the joint and the action to the

supported member reduces a bending moment of the supported member at the support spot and the bending moment value at the joint becomes uniform (abstract; column 3, lines 22-37; column 3, lines 49-55; column 4, lines 14-27; column 5, lines 15-17); wherein the supporting member and the supported member can already have an action inbetween before the frame is subjected to a load (abstract, lines 15-18; column 7, lines 1-26) and when the supported member is subjected to a load, the action changes due to enduring a bending moment and deflection occurs (column 1, lines 35-55).

m. Regarding claim 24, Cook et al. discloses a bending moment resistant structure comprising a plurality of supported members (diagonal members 2), each of the supported members having two ends with at least one of the two ends being moment resistant joined to a connection element (vertical members 3); a plurality of supporting members (19), each of the supporting members having two ends with one of the of the two ends being joined to the connection element in a joint capable of moment resistance (Figs. 6a-6l) and another one of the two ends being disposed at a support spot (adjacent 21) of the respective supported member; whereby if the structure is subjected to a load and the supported member endures a moment, the supported member is supported by the supporting member by the supported member at the support spot with the supporting member resisting deflection of the supported member such that the supporting member and supported exert a respective action to each other, resulting in the joint enduring a bending moment and intensifying a bending

moment resistance at the joint and the action to the supported member reduces a bending moment of the supported member at the support spot and the bending moment value at the joint becomes uniform (abstract; column 3, lines 22-37; column 3, lines 49-55; column 4, lines 14-27; column 5, lines 15-17); wherein an isolator (9) is disposed between the supporting member and the supported member at the support spot and the connected to either the supported member or the supporting member (Fig. 3a-3e), wherein the supporting member and the supported member can already have an action inbetween before the frame is subjected to a load (abstract, lines 15-18; column 7, lines 1-26) and when the supported member is subjected to a load, the action changes due to enduring a bending moment and deflection occurs (column 1, lines 35-55).

3. Claims 1, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Houghton (US Patent 6,591,573).

a. Regarding claim 1, Houghton discloses a bending moment resistant structure comprising a plurality of supported members (122, 121, 123), each of the supported members having two ends with at least one of the two ends being moment resistant joined to a connection element (116); a plurality of supporting members (131,126), each of the supporting members having two ends with one of the of the two ends being moment resistant joined to the connection element in a joint (Fig. 23) and another one of the two ends being disposed at a support spot (adjacent 186) of the respective supported member, the supporting members capable of generating deformation when the supporting member is

subjected to a moment; whereby if the structure is subjected to a load and the supported member endures a moment, the supported member is supported by the supporting member at the support spot with the supporting member resisting deflection of the supported member such that the supporting member and supported exert a respective action to each other, resulting in the joint enduring a bending moment and intensifying a bending moment resistance at the joint and the action to the supported member reduces a bending moment of the supported member at the support spot and the bending moment value at the joint becomes uniform (column 1, lines 57-63; column 2, lines 3-4); wherein the supporting member is a hollow member (Fig. 23) with a cross section shaped like a square tube and the supported member having a corresponding shape, wherein the supporting member is provided with the shape of a non-prismatic cross section.

b. Regarding claim 9, an isolator (186) is disposed between the supporting member and the supported member at the support spot and is connected to the supported member (Fig. 23).

c. Regarding claim 10, the material of the isolator is a rigid material comprising a steel plate (column 3, lines 62-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (US Patent 6,865,791).

a. Regarding claim 3, Cook et al. discloses the supporting members are disposed on opposite side of the supported member (Fig. Fig. 4a, 4b, 7). Cook et al. does not disclose the supported member being H shaped steel or I shaped steel with a cross section of two flanges and one web joined to the two flanges. However, it would have been a matter of obvious design choice to form the sported member as H or I shaped steel with a cross section of two flanges and one web joined to the two flanges, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1966).

Response to Arguments

6. Applicant's arguments filed 06/05/2008 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., welding vs. not welding) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH A. PLUMMER whose telephone number is (571)272-2246. The examiner can normally be reached on Monday through Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeanette E Chapman/
Primary Examiner, Art Unit 3633

/E. A. P./
Examiner, Art Unit 3635